

Contents

VOLUME 22, NUMBER 1, FEBRUARY 1997

Published 3 February 1997

ANKE BOENISCH, GERT PETERSEN and URS WYSS
Influence of the hyperparasitoid *Dendrocerus carpenteri* on the reproduction of the grain aphid *Sitobion avenae* 1–6

HELENE BRACHT JØRGENSEN and SØREN TOFT
Role of granivory and insectivory in the life cycle of the carabid beetle *Amara similata* 7–15

JESSI L. BROWN, STEVE VARGO, EDWARD F. CONNOR and MICHAEL S. NUCKOLS
Causes of vertical stratification in the density of *Cameraria hamadryadella* 16–25

R. A. BUTTS, G. G. HOWLING, W. BONE, J. S. BALE and R. HARRINGTON
Contact with the host plant enhances aphid survival at low temperatures 26–31

G. ERNSTING and J. A. ISAACS
Effects of temperature and season on egg size, hatchling size and adult size in *Notiophilus biguttatus* 32–40

YIBIN HE and TADASHI MIYATA
Variations in sperm number in relation to larval crowding and spermatophore size in the armyworm, *Pseudaletia separata* 41–46

IAN D. HODKINSON
Progressive restriction of host plant exploitation along a climatic gradient: the willow psyllid *Cacopsylla groenlandica* in Greenland 47–54

CHRISTIAN PETER KLINGENBERG and JOHN R. SPENCE
On the role of body size for life-history evolution 55–68

CRAIG W. LAMUNYON
Increased fecundity, as a function of multiple mating, in an arctiid moth, *Utetheisa ornatrix* 69–73

M. MILNE and G. H. WALTER
The significance of prey in the diet of the phytophagous thrips, *Frankliniella schultzei* 74–81

TORBJÖRN NILSSON
Survival and habitat preferences of adult *Bolitophagus reticulatus* 82–89

TAKAYUKI OHGUSHI and HIROICHI SAWADA
A shift toward early reproduction in an introduced herbivorous ladybird 90–96

DYLAN PARRY, JOHN R. SPENCE and W. JAN A. VOLNEY
Responses of natural enemies to experimentally increased populations of the forest tent caterpillar, *Malacosoma disstria* 97–108

ANDREW J. STORER, DAVID WAINHOUSE and MARTIN R. SPEIGHT
The effect of larval aggregation behaviour on larval growth of the spruce bark beetle *Dendroctonus micans* 109–115

HANS VAN DYCK, ERIK MATTHYSEN and ANDRE A. DHONDT
Mate-locating strategies are related to relative body length and wing colour in the speckled wood butterfly *Pararge aegeria* 116–120

Short Communications

E. A. BERNAYS
Feeding by lepidopteran larvae is dangerous 121–123

A. J. HELDEN and A. F. G. DIXON
Inbreeding and egg hatching success in *Sitobion avenae* 124–126

VOLUME 22, NUMBER 2, MAY 1997

Published 14 May 1997

BRADLEY R. ANHOLT
Sexual size dimorphism and sex-specific survival in adults of the damselfly *Lestes disjunctus* 127–132

ROBERT F. DENNO and BETTY BENREY
Aggregation facilitates larval growth in the neotropical nymphalid butterfly *Chlosyne janais* 133–141

SCOTT A. FIELD, MICHAEL A. KELLER and
GREG CALBERT

The pay-off from superparasitism in the egg parasitoid
Trissolcus basalis, in relation to patch defence
142–149

MICHAEL A. D. GOODISMAN and
KENNETH G. ROSS

Relationship of queen number and queen relatedness in
multiple-queen colonies of the fire ant *Solenopsis*
invicta 150–157

SUSAN HARRISON

Persistent, localized outbreaks in the western tussock
moth *Orgyia vetusta*: the roles of resource quality,
predation and poor dispersal 158–166

PAWEŁ KOPERSKI

Changes in feeding behaviour of the larvae of the
damselfly *Enallagma cyathigerum* in response to
stimuli from predators 167–175

ALFRED KÖPF, NATHAN E. RANK,
HEIKKI ROININEN and JORMA TAHVANAINEN

Defensive larval secretions of leaf beetles attract a
specialist predator *Parasyrphus nigriventris* 176–183

A. ODULAJA and I. M. ABU-ZINID

The relative efficiencies of Latin square and
randomized complete block designs for insect trapping
experiments: an investigation using field data on tsetse
flies 184–188

ADAM H. PORTER

The *Pieris napi lbryoniae* hybrid zone at Pont de Nant,
Switzerland: broad overlap in the range of suitable
host plants 189–196

RACHEL M. QUINN, KEVIN J. GASTON and
DAVID B. ROY

Coincidence between consumer and host occurrence:
macrolepidoptera in Britain 197–208

SALMAN A. RASHEED and LAWRENCE D. HARDER

Economic motivation for plant species preferences of
pollen-collecting bumble bees 209–219

HANS-PETER RUSTERHOLZ and ANDREAS ERHARDT

Preferences for nectar sugars in the peacock butterfly,
Inachis io 220–224

S. M. SAIT, M. BEGON, D. J. THOMPSON,
J. A. HARVEY and R. S. HAILS

Factors affecting host selection in an insect
host–parasitoid interaction 225–230

X. ZHOU, J. N. PERRY, I. P. WOIWOD,

R. HARRINGTON, J. S. BALE and S. J. CLARK

Detecting chaotic dynamics of insect populations from
long-term survey data 231–241

Short Communication

ANDREW J. HART and JEFFREY S. BALE

Evidence for the first strongly freeze-tolerant insect
found in the U.K. 242–245

Book Review 246

VOLUME 22, NUMBER 3, AUGUST 1997

Published 12 August 1997

GRAHAM J. FLOATER

Rainfall, nitrogen and host plant condition:
consequences for the processional caterpillar,
Ochrogaster lunifer 247–255

JONAS FÖRARE and CHRISTER SOLBRECK

Population structure of a monophagous moth in a
patchy landscape 256–263

J. GUNTRIP, R. M. SIBLY and R. H. SMITH

Controlling resource acquisition to reveal a life history
trade-off: egg mass and clutch size in an iteroparous
seed predator, *Prostephanus truncatus* 264–270

GRAHAM W. HOPKINS and ANTHONY F.G. DIXON

Enemy-free space and the feeding niche of an
aphid 271–274

JONG-YOON KIM

Female size and fitness in the leaf-cutter bee
Megachile apicalis 275–282

OWEN T. LEWIS, CHRIS D. THOMAS, JANE

K. HILL, MARTIN I. BROOKES, T. P. ROBIN CRANE

YVONNE A. GRANEAU, JAMES L. B. MALLET and

OWEN C. ROSE

Three ways of assessing metapopulation structure in
the butterfly *Plebejus argus* 283–293

ARNE C. NILSSEN

Factors affecting size, longevity and fecundity in the reindeer oestrid flies *Hypoderma tarandi* (L.) and *Cephenemyia trompe* (Modeer) 294–304

MATTHEW R. ORR, SERGIO H. SEIKE and LAWRENCE E. GILBERT

Foraging ecology and patterns of diversification in dipteran parasitoids of fire ants in south Brazil 305–314

E. POLLARD, J.N. GREATORREX-DAVIES and J. A. THOMAS

Drought reduces breeding success of the butterfly *Aglais urticae* 315–318

SIMON G. POTTS and PAT WILLMER

Abiotic and biotic factors influencing nest-site selection by *Halictus rubicundus*, a ground-nesting halictine bee 319–328

GENEVA L. ROBINS and MARY L. REID

Effects of density on the reproductive success of pine engravers: is aggregation in dead trees beneficial? 329–334

CYNTHIA S. SHEN and CATHERINE E. BACH

Genetic variation in resistance and tolerance to insect herbivory in *Salix cordata* 335–344

I. TAYASU, T. ABE, P. EGGLETON and D. E. BIGNELL

Nitrogen and carbon isotope ratios in termites: an indicator of trophic habit along the gradient from wood-feeding to soil-feeding 344–352

DIANE WAGNER and LIANNE KURINA

The influence of ants and water availability on oviposition behaviour and survivorship of a facultatively ant-tended herbivore 353–361

Short Communication

CHRIS D. JIGGINS, W. OWEN McMILLAN and JAMES MALLETT

Host plant adaptation has not played a role in the recent speciation of *Heliconius himera* and *Heliconius erato* 362–366

New Perspectives

CAROLINE S. AWMACK, CHRISTINE M. WOODCOCK and RICHARD HARRINGTON

Climate change may increase vulnerability of aphids to natural enemies 367–369

Book Review 370

VOLUME 22, NUMBER 4, NOVEMBER 1997

Published November 1997

ANURAG A. AGRAWAL

Do leaf domatia mediate a plant-mite mutualism? An experimental test of the effects on predators and herbivores 371–376

JOHN ALCOCK and WINSTON J. BAILEY

Success in territorial defence by male tarantula hawk wasps *Hemipepsis ustulata*: the role of residency 377–383

M. BASS

The effects of leaf deprivation on leaf-cutting ants and their mutualistic fungus 384–389

SIMON R. BRYANT, CHRIS D. THOMAS and

JEFFREY S. BALE

Nettle-feeding nymphalid butterflies: temperature, development and distribution 390–398

JORGE J. CISNEROS and JAY A. ROSENHEIM

Ontogenetic change of prey preference in the generalist predator *Zelus renardii* and its influence on predator-predator interactions 399–407

BRIAN R. CLARK and STANLEY H. FAETH

The consequences of larval aggregation in the butterfly *Chlosyne lacinia* 408–415

CHARLES W. FOX, KIM J. WADDELL,

JAMES DES LAURIERS and TIMOTHY A. MOUSSEAU

Seed beetle survivorship, growth and egg size plasticity in a paloverde hybrid zone 416–424

GRAHAM J. HOLLOWAY, CLIFF G. MARRIOTT and HELEN J. CROCKER

Phenotypic plasticity in hoverflies: the relationship between colour pattern and season in *Episyrphus balteatus* and other Syrphidae 425–432

RICHARD KARBAN

Neighbourhood affects a plant's risk of herbivory and subsequent success 433–439

OLIVER KRÜGER and GEORGE C. MCGAVIN

The insect fauna of Acacia species in Mkomazi Game Reserve, north-east Tanzania 440–444

STIG LARSSON, HÅKAN E. HÄGGSTRÖM and
ROBERT F. DENNO

Preference for protected feeding sites by larvae of the
willow-feeding leaf beetle *Galerucella lineola*
445-452

RACHEL M. QUINN, KEVIN J. GASTON,
TIM M. BLACKBURN and BRIAN C. EVERS HAM

Abundance-range size relationships of
macrolepidoptera in Britain: the effects of taxonomy
and life history variables 453-461

BRENT J. SINCLAIR

Seasonal variation in freezing tolerance of the New
Zealand alpine cockroach *Celatoblatta*
quinquemaculata 462-467

K. E. SMITH and R. WALL

Asymmetric competition between larvae of the
blowflies *Calliphora vicina* and *Lucilia sericata* in
carrion 468-474

Short Communication

DIANE S. SRIVASTAVA, JOHN H. LAWTON and
GADEN S. ROBINSON

Spore-feeding: a new, regionally vacant niche for
bracken herbivores 475-478

New Perspectives

KARIM VAHED and FRANCIS S. GILBERT

No effect of nuptial gift consumption on female
reproductive output in the bushcricket *Leptophyes*
laticauda Friv. 479-482

J. J. WISCO, H. MATLES and D. BERRIGAN

Is the scaling of locomotor performance with body size
constant? 483-486

Book Review 487

